IN THE CLAIMS

1. (Currently amended) A ~~transmission~~ document feeder mechanism ~~disposed inside a body,~~ comprising:

one or more drive rollers;

one or more belts capable of tightening around the ~~one or more~~ drive rollers, wherein at least one of the drive rollers is capable of driving the one or more belts;

an idle roller; and

an elastic member attached at one end to the idle roller and attached at the other end to ~~the~~ a body structure retaining the sheet feed mechanism, ~~and capable of causing~~ the elastic member configured ~~the idle roller~~ to exert a force on the one or more belts via the idle roller, ~~to maintain tightness in the one or more belts during feeding of a document between the one or more belts and the idle roller;~~ wherein the ~~one or more~~ drive rollers, idle roller and one or more belts are ~~located so as~~ further configured to:

~~receive the~~ move a document ~~via~~ from a feed-in path ~~and~~ to ~~transmit the document via~~ a feed-out path~~; wherein the elastic member comprises a structure manufactured together with the body by injection molding~~, wherein a direction of the feed-in path and a direction of the feed-out path are both substantially parallel to each other and also parallel to a direction of the force exerted by the elastic member on the idle roller; and

receive the document from the feed-in path, transport the document substantially 180 degrees around the same idle roller, and output the document from the same idle roller to the feed-out path.

2. (Currently amended) The ~~transmission~~ document feeder mechanism of claim 1, wherein the ~~number of drive rollers is three~~ idle roller is configured to press against the one or more belts so that the document bends around the idle roller in a direction away from the one or more belts.

3. (Currently Amended) The ~~transmission~~ document feeder mechanism of claim 1, wherein ~~the one or more drive rollers are arranged in a triangular formation~~ only one side of the idle roller presses against the one or more belts.

Claim 4. (Cancelled)

5. (Currently amended) The ~~transmission~~ document feeder mechanism of claim 1, wherein: ~~the one or more drive rollers comprise one or more active drive rollers capable of being driven by a motor and one or more passive drive rollers.~~

a first one of the drive rollers is located above the idle roller;

a second one of the drive rollers is located below the idle roller; and

a third one of the drive rollers is co-linearly aligned with the direction of the force exerted on the idle roller.

6. (Currently amended) The ~~transmission~~ document feeder mechanism of claim ~~4~~ 5, wherein ~~the elastic member comprises a spring.~~ the feed-in path is substantially horizontally aligned between the first one of the drive rollers and the idle roller and the feed-out path is substantially horizontally aligned between the second one of the drive rollers and the idle roller.

7. (Cancelled)

8. (Currently Amended) The ~~transmission~~ document feeder mechanism of claim ~~4~~ 6, wherein ~~the elastic member comprises plastic~~ the third drive roller is the same distance from both the first and second drive rollers, and the first and second drive rollers are a greater distance apart from each other than their distance from the third drive roller.

9. (Currently amended) The ~~transmission~~ document feeder mechanism of claim 1, wherein the one or more drive rollers include one or more axles fixed to the body.

10. (Currently amended) The ~~transmission~~ document feeder mechanism of claim 1, wherein ~~the idle roller further comprises a shaft, the shaft penetrates a center of the idle roller, and the idle roller revolves about the shaft~~ the multiple drive rollers comprise only three drive rollers arranged in a triangular formation.

11. (Currently amended) The ~~transmission~~ document feeder mechanism of claim ~~10~~ 1, wherein the elastic member is a spring fixed at one end to the shaft of the idle roller and fixed at a second end to the body, the spring configured to push out from the body against the idle roller.

12. (Currently amended) The ~~transmission~~ document feeder mechanism of claim 1, wherein the document comprises a sheet of paper.

13. (Currently amended) The ~~transmission~~ document feeder mechanism of claim 1, wherein a contact between the one or more belts and the idle roller comprises a face type contact, a location of the face type contact between the idle roller and the one or more belts being substantially perpendicular to the direction of the feed-in path and perpendicular to the direction of the feed-out path.

14. (Currently amended) The ~~transmission~~ document feeder mechanism of claim 13, wherein a surface contact friction between the one or more belts and the document is greater than the friction between the idle roller and the document.

15. (Currently amended) ~~A sheet feeder system including the transmission mechanism of claim 1, wherein the scanner further comprises~~ The document feeder of claim 1 further comprising:

a feed-in tray;

a feed-out tray located directly underneath the feed-in tray;

a feed-in roller ~~driven by a first drive roller for feeding in a~~ configured to feed the document from the feed-in tray in the direction of the feed-in path, wherein the feed-in roller is disposed adjacent a first end of one side of the transmission mechanism; and

a feed-out roller ~~driven by a second drive roller for feeding~~ configured to feed out the document from the idle roller and the one or more belts in the direction of the feed-out path toward the feed-out tray, wherein the feed-out roller is disposed adjacent a second end of the one side of the transmission mechanism.

16. (Currently amended) The ~~transmission~~ document feeder mechanism of claim 1, wherein the elastic member ~~is capable of moving~~ is configured to move the idle roller towards a substantially single tangential contact location on the one or more belts ~~in a substantially tangent direction~~ that is substantially perpendicular to the direction of force exerted by the elastic member against the idle roller.

17. (Currently amended) A sheet feeder system for a scanner having a body, comprising:

a feed-in roller located inside the body;

a feed-out roller located inside the body; and

a transmission mechanism located inside the body having an upstream end located adjacent to the feed-in roller and a downstream end located adjacent to the feed-out roller, the transmission mechanism comprising ~~at least~~:

~~one or more~~ drive rollers;

one or more belts capable of tightening around the ~~one or more~~ drive rollers, wherein at least one of the ~~one or more~~ drive rollers drive the one or more belts;

an idle roller; and

an elastic member attached at one end to the idle roller and at the other end to the body, ~~and capable of causing~~ the elastic member configured to exert a force via the idle roller ~~to exert a force~~ on the one or more belts ~~to maintain tightness in the one or more belts during feeding of a document between the one or more belts and the idle roller~~,

and wherein ~~the elastic member comprises a structure manufactured together with the body by injection molding~~ substantially only one side of the idle roller contacts the belt and exerts the force from the elastic member against the one or more belts, the force exerted from the idle roller on the one or more belts being at least approximately in a document feed-in path direction and at least approximately opposite to a document feed-out path direction.

18. (Currently amended) The sheet feeder system of claim 17, wherein the number of drive rollers is three and the driver rollers are arranged in a triangular formation.

19. (Currently amended) The sheet feeder system of claim 17 , wherein ~~the one or more drive rollers is arranged in a triangular formation where the drive rollers are located at the corners; the triangular formation comprises one or more of the following shapes: acute triangles, right-angle triangles, or obtuse triangles~~ movement of the one or more belts in combination with the force exerted by the idle roller on the one or more belts is configured to move paper approximately 180 degrees around the same idle roller.

20. (Currently amended) The sheet feeder system of claim 17, wherein: ~~the one or more belts are capable of driving the idle roller in a rotational direction~~

a first one of the drive rollers is located above the idle roller;

a second one of the drive rollers is located below the idle roller; and

a third one of the drive rollers is co-linearly aligned with the direction of force exerted by the elastic member via the idle roller against the one or more belts.

21. (Currently amended) The transmission mechanism of claim ~~1, wherein the one or more belts are capable of driving the idle roller in a rotational direction~~ 17 further comprising a scan module located in between the transmission mechanism and the feed-out roller and configured to scan paper output from the transmission mechanism after being moved 180 degrees around the idle roller.

22-28. (Cancelled)

29. (New) A method for feeding a document, comprising:

driving a belt to transport a document;

asserting an elastic force against an idle roller causing the idle roller to press against the belt at a substantially tangential contact location on the belt that is substantially perpendicular to the elastic force asserted against the idle roller; and

asserting the elastic force against the belt via the idle roller so that a document transported by the belt partially bends around the idle roller while the document at the same time partially separates away from the belt.

30. (New) The method according to claim 29 further comprising driving the belt with only three drive rollers wherein a first drive roller is located above an in-feed path for the document, a second drive roller is located below an out-feed path for the document, and a third drive roller is located in back of the first and second drive rollers in a co-linear alignment with a direction of force exerted on the idle roller.

31. (New) The method according to claim 30 further comprising;

locating an in-feed tray and an out-feed tray externally from a housing that contains the belt, idle roller, and three drive rollers;

moving the document from the externally located in-feed tray into the housing and toward the belt;

using the belt, drive rollers, and the idle roller to maneuver the document through a substantially 180 degree turn as the document passes through the housing; and

outputting the document from the housing to the out-feed tray.

32. (New) The method according to claim 29 wherein a document feed-in path direction is substantially opposite to a document feed-out path direction